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The financial risks of climate change

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A rise in global temperatures could lead to more-expensive and harder-to-obtain property insurance in the UK and throughout the world. A new report, produced for the Association of British Insurers (ABI) by the Met Office and AIR Worldwide Corporation, finds that in the UK, predicted temperature changes could bring significant increase in the insured cost of both flood and windstorm damage.

The financial risks of climate change uses current climate and insurance catastrophe models to examine the financial implications of predicted global temperature rises of 2, 4 and 6 °C on the insured cost of flood and windstorm damage in the UK, and of typhoons in China.

Matt Huddleston, Met Office Principal Climate Change Consultant, said: “The Met Office created a series of climate scenarios based on the current state-of-the-art climate model output, and expert analysis of published scientific research and data. These climate scenarios were then used by AIR Worldwide to condition their existing catastrophe models, providing a unique insight into relationships between climate change and potential financial risk impacts.”

Warming temperatures are expected to influence the pattern and intensity of rainfall, winds and storms in the future. This means the amount and geographical spread of inland flooding and storm damage is likely to change.

The study highlights that:

- In the UK, the average annual insured losses from river flooding and flash floods could rise by 14% to £633 million, based on a 4 °C rise in global temperatures which could occur as early as 2060. The average annual windstorm losses could rise by 25% to £827 million, due to changes in ‘storm tracks’ along which cyclones travel.
- The insured cost of extreme flood losses occurring on average once every 100 years in Great Britain could rise by 30% to £5.4 billion. The costs of windstorms occurring on average once every 100 years could rise by 14% to £7.3 billion.
- Wales and the south-west region of the UK could be most badly affected. In the south-west, average annual flood and wind damage insured losses could rise by 29% and 24% respectively.
- In China, average annual insured losses from typhoons could jump by 32% to £345 million, based on a global temperature rise of 4 °C.

Nick Starling, the ABI’s Director of General Insurance and Health, said: “These findings have serious implications for insurers, householders, businesses and governments. The continued widespread availability of property insurance in the future depends on taking action now to manage the threats of climate change.”

More about the ABI project
More about Met Office Consulting

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